



## **Brompton handlebar crossbar, fitting notes for dealers.**

### What you need:

Tools needed: 3mm hex key, two 17mm AF spanners and (perhaps) a screwdriver.

### The kit comprises:

- 2 x strap/clip-band (see second note below)
- 2 x M5 x 20 button-head screw
- 2 x plain headed bush
- 2 x threaded headed bush (greased)
- 1 x jacking screw (M5 x 25)
- 1 x crossbar assembly

### Notes:

- Before fitting the cross-bar, check the condition of the handlebar: pull up firmly on both ends, and if the feel is wrong or you hear any creaking, check for the cause: also visually inspect the handlebar for cracks, particularly each side of the centre clamp, on the underneath.
- Clip-band size. The handlebar will either be 7/8" (22.2mm) in diameter, and the correct length clip-bands must be used: the clip-bands for the larger diameter bar are no longer supplied.
- So that the crossbar does not clash with the fork blade when the handlebars are folded, the crossbar has to be mounted offset aft, as per Fig A.
- When assembling, feed the screws in from behind: if you feed them from in front, the cables get in the way.
- The adjustable crossbar has a left hand thread at one end, and a right hand thread at the other: it doesn't matter which side is where. But if you repeatedly do the job, you may find it helps to keep the LH thread on the LH side.
- There may be a Brompton front-lamp-bracket fitted: if so, the higher this is, the better, so that the cross bar, in turn, can be as high as possible underneath it.

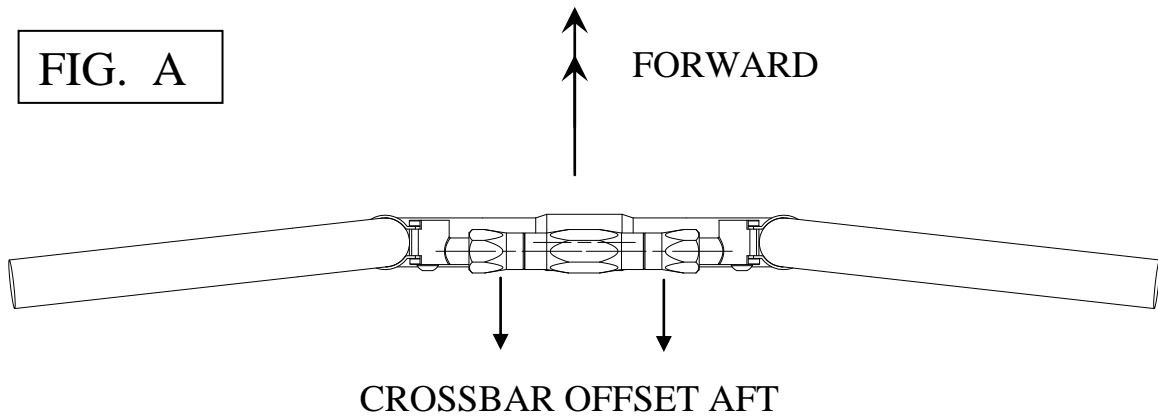
### Assembly:

1. Fit the strap/clip-band round the handlebar, and squeeze the ends together by hand, fig B. It's quite difficult to get rid of all the spring-back, so a temporary "jacking" screw is provided in case it's needed to help with the next stage.
2. Have a screw ready in place in the unthreaded bush. Place one end of the crossbar (with the crossbar offset aft) between the ends of the strap, fig C. Insert the screw & unthreaded bush from the aft side, and then a threaded bush from the forward side: make sure the threaded bush is in line, and do up the screw, but don't tighten it fully at this stage. If you have difficulty persuading the screw to start, then use the jacking screw first, and screw it up: then unscrew it, and replace it with the shorter button head screw.

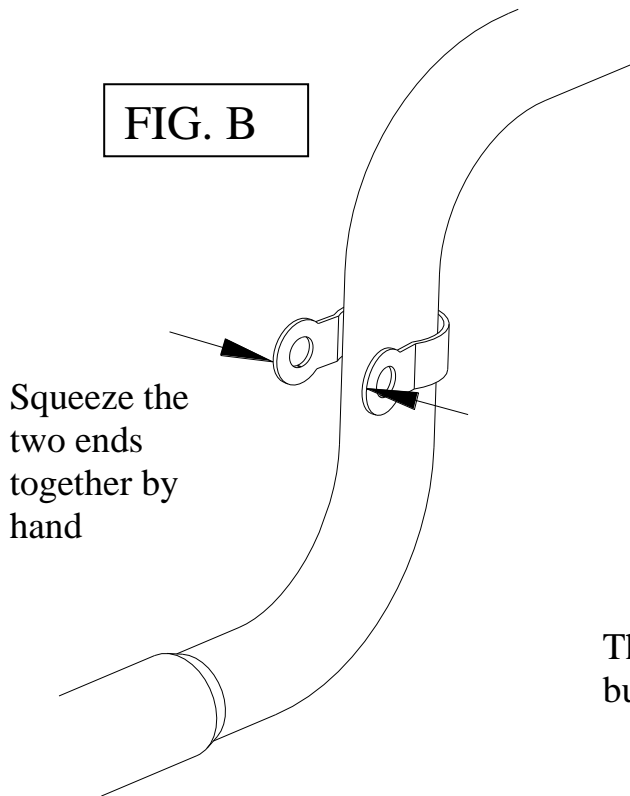
3. Move the assembled clip band to the correct position on the handlebar (when the assembly is finished, the crossbar should lie between 60 and 90mm above the base of the handlebar, fig D).
4. Next, slacken the locknut at each end, and then, while holding the free eyelet so that it does not turn, turn the adjustor so as to extend the crossbar: carry on, fig E, till this free eyelet at the opposite end is just touching the handlebar, at the right height at K.
5. It is important that the adjustor is central, with the distances P and Q near enough the same: if they are not the same, turn the free eyelet till they are, and then reset the adjustor to give the required contact at K. (Note: if the adjustor is not central, there is a risk that at one end there will be too little engagement of the threads, and the crossbar will fail under load.)
6. Fit the strap, bushes and screw at this end, K, by repeating steps 1 & 2.
7. Make sure the crossbar is level, turn the adjustor by hand so as to bring the crossbar (temporarily) into tension (you can see the two sides of the handlebar being drawn together) and tighten up the screw at each end, firmly. The reason for applying tension while doing this is to help keep everything in line, so that the barrel still turns freely after the screws are tightened.
8. Now turn the adjustor back till it is slack, so that there is no tension or compression in the crossbar: **this too is important, as there should be no pre-load in the handlebar**. Next, without moving the adjustor, turn each locknut by hand till it bears against the adjustor.
9. Finally, hold the adjustor from turning with a 17mm AF spanner, and do up each locknut with the other 17mm spanner. Do these up firmly, but **do not over-tighten** (you might strip the threads), torque approx. 2NM. The idea is that these locknuts should be impossible to undo by hand, say while riding with hands on the crossbar (if the adjustor does get turned, then it will introduce a pre-load in the handlebars, which should be avoided): so check that the adjustor cannot be moved by hand.
10. Check the folding. Provided the crossbar has been fitted offset **aft**, the cross bar should clear the right hand fork (with space for the cables) when the bike is folded. If it does not, then unscrewing the handlebar nipple by a turn or two (or else slight adjustment of the handlebar position) will give the clearance needed.



**FIG. A**



**FIG. B**



Threaded bush

**FIG. C**

